College of Rheumatology criteria for 20% improvement (ACR20 criteria). Data was obtained from a comprehensive literature review using PubMed, Medline, and Cochrane library. Efficacy values were obtained from published randomized clinical trials. A decision tree analyses was conducted followed by one-way and two-way sensitivity analyses. Costs and efficacy values associated with therapeutic options were varied in the sensitivity analyses. **RESULTS:** The probability of achieving ACR20 response for ETAN+MTX, ADAL+MTX, INFL+MTX, and MTX were 85.5%, 65.95%, 61.26%, and 39.94%, respectively. The probability of an adverse drug event occurrence for ETAN+MTX, ADAL+MTX, INFL+MTX, and MTX were 14.0%, 6.5%, 7.9%, and 9.5%, respectively. The analysis revealed that ETAN+MTX option was the most cost-efficacious, with an annual cost of $52,369 to the patient. The annual cost savings with ETAN+MTX combination use would be $19,318. Annual costs of ADAL+MTX, INFL+MTX, and MTX monotherapy were $79,058, $68,932, and $67,071 respectively. Results were robust to both one-way and two-way analysis. **CONCLUSIONS:** Etanercept plus Methotrexate combination therapy was a better option based on the ACR 20 outcome measure considered. An analysis using real world data and/or a prospective head-to-head comparison study could provide better conclusive evidence for decision-makers.

PMS24

LOWER HIP FRACTURE RATES IN THE FIRST YEAR OF THERAPY TRANSLATE INTO FAVORABLE COST-EFFECTIVENESS FOR RISEDRONATE VS. GENERIC ALENDRONATE AMONG HIGH RISK PATIENTS

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OBJECTIVES: An observational study comparing risedronate to alendronate (REAL) in a subgroup of postmenopausal osteoporotic (PMO) women with prior fracture demonstrated that treatment with risedronate reduced the incidence of hip fracture by 66% in the first year of treatment (Delmas, 2008). The objective of this analysis was to determine the cost-effectiveness of risedronate compared to alendronate at generic pricing using these effectiveness data in a high risk PMO population in the U.S. **METHODS:** A validated Markov model of osteoporosis (Tosteson, 2001) was used to estimate the impact of therapy on hip fractures, costs, and quality-adjusted life years (QALYs). The model simulated a cohort of 1000 women ages 65+ with BMD≤–2.5 and a previous vertebral fracture, treated with risedronate or alendronate for one year. Associated costs and QALYs were tracked for an additional two years in each arm. Hip fracture incidence and mortality rates, as well as drug (generic alendronate 93.5% lower than risedronate) and hip fracture costs were extracted from published literature. **RESULTS:** In a cohort of 1000 women treated with risedronate versus alendronate, the model predicted 25 fewer hip fractures and 8.41 additional QALYs, resulting in a cost savings of $330,378. Extrapolating to a population of PMO women with a prior vertebral fracture in the U.S. suggests that risedronate prevents over 114,000 fractures in roughly 4.6 million women at cost savings of over $1,515 million. A sensitivity analysis assuming treatment for 2 years and parity efficacy in year 2 resulted in a cost per QALY gained for earlier fracture protection of $9925 (cost per fracture averted: $3419) when treating with risedronate versus alendronate in the population 65+. Risedronate remains cost-saving in the 80+ population. **CONCLUSIONS:** Based on "real world" data this analysis suggests risedronate's early fracture protection results in favorable cost-effectiveness versus generic alendronate despite its higher drug cost.

PMS25

COST-EFFECTIVENESS IN OSTEOARTHRITIS PAIN RELIEF TREATMENT WITH NSAIDS – A DETERMINATION AND ESTIMATION OF KEY DRIVERS

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OBJECTIVES: To determine and quantify the key drivers of cost-effectiveness in osteoarthritis (OA) treatment with traditional NSAIDs and COX-2 selective pharmaceuticals. **METHODS:** Cost effectiveness analysis (CEA) in OA treatment with traditional NSAIDs and COX-2 selective pharmaceuticals focus on side effects given the non-significant differences in efficacy (pain relief) among treatments. The most frequently included side-effects and complications in OA CEA analysis are gastrointestinal (GI) complications and myocardial infarction (MI). Given the concern about broader cardiovascular (CV) risks associated with NSAID treatment, the scope of a recently published Markov model (five-year horizon, three-month cycles, health care perspective) was expanded to include four additional CV events (stroke, coronary insufficiency, venous thromboembolism and angina). Two treatments priced at 1) the average of celecoxib and etoricoxib, and 2) ibuprofen were evaluated. The model was populated with UK data. Absolute and relative GI risks were derived from a recent NICE HTA report whereas absolute CV risks were assumed to equal the normal population risk and relative CV risks were taken from the literature. The model was used to determine the most important drivers of cost-effectiveness in OA treatment. This was done by evaluating the responsiveness of the ICER to a 1% change in the input variable of interest, controlling for changes in all other variables. **RESULTS:** The five most influential variables were (% impact on ICER resulting from 1% change in the variable): Quality of life in arthritis (2.5%), relative risk of CV events (1.5%), relative risk of mild GI events (1.3%), price of the COX-2 pharmaceutical (1.3%) and quality of life in dyspepsia (0.7%). **CONCLUSIONS:** Whilst the most important cost-effectiveness driver in OA treatment is overall quality of life changes, the analysis indicate that there might be higher economic benefits associated with decreasing CV risks rather than decreasing aspects of GI risk.

PMS26

CHARACTERISTICS AND HEALTH CARE UTILIZATION RESULTING FROM INJECTION SITE REACTIONS WITH ANTI-TNF TREATMENTS FOR RHEUMATOID ARTHRITIS: AN ANALYSIS OF CASES AT AN URBAN TEACHING HOSPITAL

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OBJECTIVES: Injection site reactions (ISR) are the most common type of adverse event associated with the subcutaneous use of the tumor necrosis factor inhibitor (Anti-TNF) agents, etanercept (Enbrel) and adalimumab (Humira). The purpose of this study was to 1) investigate the incidence and characteristics of ISR, and 2) capture the humanistic and economic consequences of ISR in patients who received etanercept and/or adalimumab for rheumatoid arthritis (RA). **METHODS:** RA patients were identified through a query of outpatient claims with an ICD-9 code for RA and practice code for Jefferson Rheumatology Associates, Philadelphia, PA. Patients who met inclusion criteria of ≥18 years old and having received etanercept or adalimumab in the past 3 years were administered a one-time observational survey developed by the investigators. **RESULTS:** The study included thirty patients, five of which had used both adalimumab and etanercept. The overall prevalence of ISR was 56.3% (9 patients, n = 16) for adalimumab and 84.2% (16 patients, n = 19) for etanercept. Clinical characteristics of ISR included erythema (44.4%–68.8%), pruritus (44.4%–68.8%), and swelling (33.3%–56.3%). Only one patient (3.3%) in the cohort was pre-medicated for ISR. Three patients in the adalimumab (n = 9, 33.3%) and one patient in the etanercept group (n = 16, 6.25%) called their physician when experiencing a first-time ISR. Ice was the most common form of treatment for the first, typical, and worst incidence of ISR. No patients reported going to the ER, taking antihistamines, or using analgesics to treat ISR. Two patients (22.2%) and no patients discontinued therapy due to ISR in the adalimumab and etanercept group, respectively. No missed work-days were reported in either group due to ISR. **CONCLUSIONS:** ISR occurred in over half of the patient cases studied, and was largely characterized by erythema, pruritis, and swelling. Patient counseling about ISR is essential since self-treatment is common and discontinuation may result.

PMS27

COSTS OF PSORIATIC ARTHRITIS IN HUNGARY; RESULTS FROM A CROSS-SECTIONAL SURVEY

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OBJECTIVES: Psoriatic arthritis (PsA) is an inflammatory arthritis occurring in about 10–30% of the patients with psoriasis. Registration of highly effective but costly biological drugs for the treatment of PsA gave an extra impulse to economic evaluations in rheumatology. There are no data on cost-of-illness of PsA neither from Hungary nor from countries with similar economic status (i.e. Poland, Slovakia and Czech Republic). The main goal of present study was to collect data on disease burden and costs of patients with PsA in Hungary. **METHODS:** A cross sectional questionnaire survey of consecutive patients aged ≥18 years with diagnosis of PsA was conducted in 8 hospital based rheumatology outpatient centres in Hungary in 2008. Data were collected by rheumatologists during routine outpatient visits. Observed variables were demographic data, disease duration, disease activity score (DAS28), psoriasis area severity index (PASI), drug use, the use of aids and devices, imaging, gastroscopy, outpatient visit, admissions to hospital, orthopaedic surgery, spa, physiotherapy, home care, transportation, non-reimbursed health care services, home remodelling and informal care. Data on PsA related reduction of working hours, sick leave and disability pension were collected also. **RESULTS:** A total of 183 patients were enrolled, of these, 104 (57%) were women. The mean age of the sample was 50.3 (SD 12.9) years and the mean disease duration was 9.2 (9.2) years. The annual average direct, indirect and total costs were 2 670, 2 904 and 5 574 euros/patient/year in PsA, respectively. The main cost domains were the productivity losses due to work disability (49%) and the costs of biologic therapies (18%), with 2 742 (SD 4 920) and 1 008 (SD 4 134) euros/patient/year, respectively. **CONCLUSIONS:** Our study showed that the economic burden of PsA is considerable in Hungary and provided a baseline to evaluate the economic effect of treatments in PsA.

PMS28

THE COSTS OF NON-VERTEBRAL OSTEOPOROTIC FRACTURES IN THE UNITED STATES

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OBJECTIVES: Assess direct (medical and drug) and indirect (workloss) costs of osteoporotic patients with non-vertebral (NV) fractures. **METHODS:** Osteoporosis patients (ICD-9-CM code 733.0) were identified (1999–2006) from an employer claims database (~8,000,000 privately-insured beneficiaries; ages 18–64) and the Medicare Standard Analytic Files 5% sample (ages 65+). Osteoporotic patients with NV fracture (femur, pelvis, lower leg, upper arm, forearm, rib, or hip) were randomly matched on age, gender, employment status, and geography to osteoporotic controls.